

Applicant has amended the specification on page 7 to correct a typographical error, i.e. by substituting the numeral 11 for the numeral 13 in the last paragraph. Applicant appreciates the Examiner's thorough review of the application.

Applicant has amended claim 1 in order to more clearly define the present invention over the prior art. In particular, claim 1 has been amended to clarify the erosion control system of the present invention as comprising a flexible matting having an upper surface and a lower surface, the matting including a core layer formed of a fiber matrix comprising randomly oriented fibers, and an upper layer bonded to the core layer and defining the upper surface of the matting, and the upper surface of the matting having a substantially planar surface topography without substantial three dimensional features.

Applicant has amended claim 14 in order to more clearly define another embodiment of the present invention which provides an erosion control system comprising a flexible matting comprising a core layer formed of a fiber matrix comprising Sudan grass.

The Examiner has rejected claims 1, 9-11 and 12 under 35 U.S.C. 102(b) as being anticipated by Lancaster, U.S. patent no. 5,849,645. Applicant traverses this rejection as it pertains to the present claims 1, 9-11 and 12.

The Examiner states, regarding original claim 1:

"Lancaster discloses an erosion control system 10 comprising a flexible matting adapted to be placed on a sloped, substantially unvegetated surface wherein the matting includes a core layer with components 20,30,40 including a fiber matrix 20. The matting further includes an upper layer 50 bonded to the core layer wherein the core layer and upper layers define a substantially flat upper surface (see Fig.4)."

Applicant respectfully submits that it is well known that to anticipate a claimed invention under 35 U.S.C. 102, a reference must disclose each and every element of the claim at issue and the elements of the claim must be arranged in the same way to achieve the same result which is asserted to be the inventive function.

Lancaster does not disclose each and every element of claim 1 as amended. For example, Lancaster does not disclose "the upper surface of the matting having a substantially planar surface topography without substantial three dimensional features", as recited in the present independent claim 1.

Applicant submits that claim 1 as amended, as well as claims 9-11 and 12, each of which is directly or indirectly dependent on claim 1, are not anticipated by and are patentable over Lancaster under 35 U.S.C. 102(b).

In addition, the Examiner has rejected claims 2-8, 13, and 19-22 under 35 U.S.C. 103(a) as being obvious in light of Lancaster. Applicant respectfully disagrees.

Lancaster discloses a reinforced composite matting having a three-dimensional, cusped, upper surface defined by parallel ridges and troughs. This feature of Lancaster is disclosed throughout the specification and is an important feature of Lancaster.

Lancaster does not disclose, teach or suggest the present invention. For example, Lancaster does not disclose, teach or even suggest an erosion control matting in which the upper surface of the matting has a substantially planar surface topography without substantial three dimensional features.

Moreover, Lancaster provides no incentive or motivation to a person of ordinary skill in the art to modify the Lancaster device to provide an apparatus in which the upper surface of the matting has a substantially planar surface topography without substantial three dimensional features, as recited in the present claims. In fact, Lancaster directly teaches away from this feature of the

invention, in that Lancaster discloses, without exception, that the upper surface of the matting is always a cusped, three-dimensional surface, having an upper surface defined by ridges and troughs. The intended purpose of the three dimensional surface of the Lancaster system is to trap mulch, sediment and plant litter. (See, for example, Lancaster at column 4, lines 56-63, and column 5, lines 59-65).

Applicant submits that, even if the Lancaster system were to be erroneously modified such that it included a substantially planar surface topography without substantial three dimensional features, such a modification would render the Lancaster system clearly unsatisfactory for its intended purpose, i.e. for trapping mulch and sediment within the three-dimensional surface cuspatations. Indeed, Lancaster discloses that the matting is designed to reduce the possibility that the three-dimensional features will be flattened upon installation of the lining; see Lancaster column 6, lines 4-9.

Applicant submits that the claims as amended, for example, claims 1-8 and 19-22, define patentable subject matter and are not anticipated by and are unobvious from and patentable over Lancaster under 35 U.S.C. 102 and 35 U.S.C. 103.

The Examiner has rejected claims 14-18 under 35 U.S.C. 103(a) as being unpatentable over Lancaster in view of Sakate et al, U.S. Patent No. 5,421,123. More particularly, the Examiner contends, on page 6 of the Office Action, "Lancaster also discloses that the erosion control system comprises a fiber matrix [which] may include any commercially available fibers. Commercially available fibers include Sudan grass." Applicant strongly disagrees and traverses this rejection.

Sakate et al discloses a vegetation mat including a front sheet, a back sheet and a vegetation material disposed therebetween. The vegetation material is a mixture of vegetation seeds and one or more chemical fertilizers, soil improvement

materials, and other similar components. (See Abstract of Sakate et al.) The Examiner argues that "It would have been obvious to one of ordinary skill in the art to combine the Lancaster's erosion control system with the nutrient teachings of Sakate et al..."

Applicant submits that neither Sakate nor Lancaster disclose an erosion control system having a core layer comprising Sudan grass such as defined in amended claim 14.

Applicant submits that the "nutrient teachings" of Sakate et al are the use of chemical fertilizers. Sakate et al does not disclose, teach or even suggest the inclusion of Sudan grass in its mat. Sudan grass is a leafy plant conventionally used for covering pastures for feeding livestock. To applicant's knowledge, prior to the present invention, Sudan grass had not been used for purposes of erosion control.

The Examiner's assertion that Sudan Grass is a type of commercially available fiber for use in erosion control is simply not correct.

Applicant submits that claim 14, as amended, defines patentable subject matter and is unobvious from and patentable over Lancaster and/or Sakate et al, alone or in any combination, under 35 U.S.C. 103.

The Examiner has rejected claims 19-22 under 35 U.S.C. 103(a) as being unpatentable over Lancaster. The Examiner argues that Lancaster discloses an erosion control system comprising a fiber matrix that may include a material selected from the group consisting of coconut fibers, flax fibers, polypropylene fibers and combinations thereof, but may include any commercially available fibers which includes rice straw. Applicant disagrees.

Lancaster does not disclose, teach or even suggest an erosion control matting comprising a core of rice straw fibers. Lancaster discloses coconut fibers, known as "coir", which are significantly different from rice straw fibers. For example, coconut fibers have been commonly used as a primary material in conventional

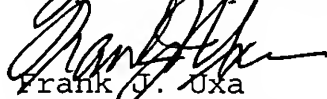
erosion control mats. In comparison to a coconut fiber, a rice straw fibers is substantially longer, less dense, and has a highly translucent quality. Coir has many common uses, and has been included as a manufacturing material in a variety of products worldwide, whereas rice straw fibers have long been considered a relatively useless waste product of the rice industry that was traditionally disposed of by open burning. Applicant submits that because of the significant differences between coir and rice straw, it would not have been obvious to a person of ordinary skill in the art to substitute the coconut fibers in the mat of Lancaster with rice straw fibers.

In view of the above, applicant submits that claims 19-22 are unobvious from and patentable over Lancaster under 35 U.S.C. 103.

Furthermore, each of the present dependent claims is separately patentable over the prior art. For example, none of the prior art, taken singly or in any combination, disclose, teach or even suggest the present systems including the additional feature or features recited in any of the dependent claims. Therefore, applicant submits that all of the present claims are separately patentable over the prior art.

In conclusion, applicant submits that claims 1-12, 14-16, and 18-22 are allowable and respectfully requests the Examiner to pass the above-identified application to issuance at an early date. Should any matters remain unresolved, the Examiner is requested to call (collect) applicant's attorney at the telephone number given below.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Amend the last paragraph on page 7 as follows:

--In a preferred embodiment of the present invention, the matting 12 is structured to withstand continuous, as well as intermittent, liquid flow, for example, high velocity water flow, over the surface [13] 11 on to which it is placed and/or secured. The matting 12 of the present invention is designed to be flatter and more flexible than conventional reinforcement matting while exhibiting superior, tensile strength properties. The matting 12, particularly an upper surface profile thereof, has no substantial three dimensional features such as grooves, troughs, cuspatations, crimping, or other open structured, three-dimensional features.--

IN THE CLAIMS

Cancel claim 13 and 17.

Amend claims 1 and 14 as follows:

1. (Amended) An erosion control system comprising:
a flexible matting having an upper surface and a lower surface structured [adapted] to be secured to or placed on a sloped, substantially unvegetated surface, the matting including
a core layer formed of a fiber matrix comprising randomly oriented fibers; and
an upper layer bonded to the core layer;
the upper surface of the matting having a substantially planar surface topography [wherein the core layer and upper layer define a substantially flat upper surface of the matting being] without substantial three dimensional features.

14. (Amended) An erosion control system comprising:
a flexible matting structured to be secured to or placed on a

surface prone to erosion, the matting comprising a core layer formed of a fiber matrix comprising Sudan grass [comprising randomly oriented plant fibers, the plant fibers being effective in releasing effective amounts of nutrients to the surface upon decomposition of the plant fibers].